UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

03/01/2005

Mitchell S. Bigel Myers Bigel Sibley & Sajovec, P.A. P.O. Box 37428 Raleigh, NC 27627

EXA	AMINER
PHAN,	, TRONG Q
ART UNIT	PAPER NUMBER

2827
DATE MAILED: 03/01/2005

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,574	04/01/2004	Sang-bo Lee	5649-1255	9388

TITLE OF INVENTION: MULTI-STAGE OUTPUT MULTIPLEXING CIRCUITS AND METHODS FOR DOUBLE DATA RATE SYNCHRONOUS MEMO DEVICES

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$300	\$1700	06/01/2005

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATEN PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHT THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPO PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM TH MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THE STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOV REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (O AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WIL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is n claiming SMALL ENTITY status, check box 5a on Part B - Fee Transmittal and pay the PUBLICATION FEE (if required) and 1 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) w your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

(703) 746-4000 or Fax

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks I through 5 should be completed wh appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address

indicated unless corrected by maintenance fee notification		in Block 1, by (a)) specifying a new co	orrespondence address	s; and/or (b) indicating a sepa	arate "FEE ADDRESS"
CURRENT CORRESPONDENC	E ADDRESS (Note: Use Block 1 for	any change of address)		Note: A certificate of Fee(s) Transmittal. The papers. Each addition	f mailing can only be used for his certificate cannot be used al paper, such as an assignment	or domestic mailings of for any other accompany ent or formal drawing, m
	590 03/01/2005			have its own certificat	nal paper, such as an assignmente of mailing or transmission.	
Mitchell S. Bigel Myers Bigel Sibley P.O. Box 37428 Raleigh, NC 27627	•			Ce I hereby certify that t States Postal Service addressed to the Ma transmitted to the USI	ertificate of Mailing or Transhis Fee(s) Transmittal is bein with sufficient postage for fir il Stop ISSUE FEE address PTO (703) 746-4000, on the control of	smission g deposited with the Un st class mail in an envel above, or being facsim date indicated below.
						(Depositor's na
						(Signat
						(D
APPLICATION NO.	FILING DATE	ı	FIRST NAMED INVEN	ITOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,574	04/01/2004		Sang-bo Lee		5649-1255	9388
TITLE OF INVENTION: DEVICES	MULTI-STAGE OUTPUT	MULTIPLEXIN	G CIRCUITS AND	METHODS FOR E	OOUBLE DATA RATE SY	NCHRONOUS MEMO
APPLN. TYPE	SMALL ENTITY	ISSUE FE	EE PL	JBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400		\$300	\$1700	06/01/2005
EXAM	IINER	ART UNI	IT CI	LASS-SUBCLASS]	
PHAN, T	RONG Q	2827		365-189020	_	
"Fee Address" indicat PTO/SB/47; Rev 03-02 of Number is required. 3. ASSIGNEE NAME AND	lence address (or Change of 22) attached. ion (or "Fee Address" Indicate or more recent) attached. Use	Correspondence ation form e of a Customer E PRINTED ON T	(1) the names of tor agents OR, alter (2) the name of a registered attorney 2 registered patent listed, no name with HE PATENT (print of	single firm (having as v or agent) and the nan attorneys or agents. If all be printed.	a member a 2nes of up to	locument has been filed
recordation as set forth in (A) NAME OF ASSIGNI				Y and STATE OR CO	OUNTRY)	
Please check the appropriate				Individual I C	Corporation or other private gr	oup entity Governm
4a. The following fee(s) are	enclosed:	4b.	Payment of Fee(s):			
	mall entity discount permitte	ed)	_	nount of the fee(s) is en it card. Form PTO-203		
	Copies		The Director is I	hereby authorized by o	charge the required fee(s), or (enclose an extra c	credit any overpayment opy of this form).
5. Change in Entity Status a. Applicant claims Si	(from status indicated above)			LL ENTITY status. See 37 C	
The Director of the USPTO NOTE: The Issue Fee and Printerest as shown by the reco	is requested to apply the Issu ublication Fee (if required) v ords of the United States Pate				ly paid issue fee to the applications at the strong or agent; or the	
Authorized Signature				Date		
Typed or printed name _				Registration	1 No	
This collection of information an application. Confidentialists submitting the completed applications and applications and applications and applications are submitted.	on is required by 37 CFR 1.3 ty is governed by 35 U.S.C. plication form to the USPT	11. The information 122 and 37 CFR 1 O. Time will vary	n is required to obtain 14. This collection i depending upon the i	or retain a benefit by s estimated to take 12 individual case. Any c	the public which is to file (an minutes to complete, includin onments on the amount of ti	d by the USPTO to proc ng gathering, preparing, me you require to comp

this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 14 Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.ggv

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,574	04/01/2004	Sang-bo Lee	5649-1255	9388
75	90 03/01/2005		EXAM	INER
Mitchell S. Bigel			PHAN, TI	RONG Q
Myers Bigel Sibley & Sajovec, P.A. P.O. Box 37428			ART UNIT	PAPER NUMBER
Raleigh, NC 27627			2827	
			DATE MAIL ED: 03/01/2004	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after t mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a h months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date th determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retriev (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office Patent Legal Administration at (571) 272-7702. Questions relating to issue and publication fee payments should directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.